

AMENDMENTS TO THE CLAIMS:

Claims 1-22 (Cancelled)

23. (New) An engineering system that employs a solid shape describing method for describing a solid model existing in a three-dimensional space with use of a bit map, said system comprising:

a function for defining a plurality of different coordinate systems used for said solid model;

a function for defining that an area occupied by one of said plurality of different coordinate systems overlaps with a part or whole of an area occupied by another coordinate system; and

a display unit for displaying a solid shape by describing its solid shape data with use of said plurality of different coordinate systems.

24. (New) An engineering system that employs a solid shape describing method for describing a solid model existing in a three-dimensional space with use of a bit map having a cell disposed on a grid point defined by a coordinate system, said cell determining whether said grid point exists inside or outside a shape,

wherein said system comprises:

a function for defining a plurality of different coordinate systems used for said solid model;

a function for defining that an area occupied by one of said plurality of different coordinate systems overlaps with a part or whole of an area occupied by another coordinate system; and

a display unit for displaying a solid shape by describing its solid shape data with use of said plurality of different coordinate systems.

25. (New) An engineering system that employs a solid shape describing method for describing a solid model existing in a three-dimensional space with use of a bit map having a cell disposed on a grid point defined by a coordinate system, said cell determining whether said grid point exists inside or outside a shape, wherein said system comprises:

a display unit;

a function for displaying a fixed coordinate system used for a predefined three-dimensional space on a screen of the display unit;

a floating coordinate system defining function for accepting a defined single or plurality of floating coordinate systems used for said solid model on said fixed coordinate system displayed on the screen of said display unit; and

a function for defining that an area occupied by one coordinate system, of said fixed coordinate system and said floating coordinate systems, overlaps with a part or whole of an area occupied by another coordinate system,

wherein said display unit includes a function for displaying a solid shape by describing its solid shape data with use of said fixed coordinate system and said floating coordinate systems.

26. (New) The system according to claim 25, wherein said display unit can display a control point of each of said floating coordinate systems.

27. (New) The system according to claim 25, wherein said display unit can display a control point of each of said floating coordinate systems and set each of said floating coordinate systems on the screen of said display unit.

28. (New) A solid shape describing method employed for an information processing system that describes a solid model existing in a three-dimensional space with use of a bit map, said method including a process of setting a plurality of different coordinate systems used for said solid model shape data, wherein:

said plurality of coordinate systems are set in said process so that an area occupied by one of said plurality of different coordinate systems overlaps with a part or whole of an area occupied by another coordinate system, and

said method displays a solid shape obtained from the shape data of said solid model shape data described with use of said plurality of different coordinate system.

29. (New) A solid shape describing method employed for an information processing system, said method describing a solid model existing in a three-dimensional space with use of a bit map having a cell disposed on a grid point defined by a coordinate system, said cell determining whether said grid point exists inside or outside a shape, wherein:

said solid model has a plurality of different coordinate systems,

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an area occupied by one of said plurality of coordinate systems is defined so as to overlap with a part or whole of an area occupied by another coordinate system, and

a solid shape is displayed according to the shape data of said solid model described with use of said plurality of different coordinate systems.